

**SEARCH REQUEST FORM****Scientific and Technical Information Center**

Requester's Full Name: Amit K. PASHWANI Examiner # : 600484 Date: 1/28/02  
 Art Unit: 3700 Phone Number 303-113-7 Serial Number: 09/458,233  
 Mail Box and Bldg/Room Location: 602 - 2 A-31 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

LIT SEARCH 5,694,937

**STAFF USE ONLY**

Searcher: Schlesinger

**Type of Search**

NA Sequence (#) \_\_\_\_\_

**Vendors and cost where applicable**

STN \_\_\_\_\_

\_\_\_\_\_

**To: Andres Kashnikow, SPRE TC3700, CP2,**

**Case Number: # 09/458,235**

**Searched by: Terry Solomon, Technical Information Specialist, EIC 3700**

**Litigation search on: US 5694937**

**Databases searched: Lexis (lexis.com); PlusPat and Inpadoc (Questel/Orbit)**

**Results:**

**Lexis- Patent Litigation- Reissue**

**Patent Cases- None**

**Patent Journals- None**

**PlusPat and Inpadoc- see attached**

If you have any questions regarding these results, contact **John Sims (308-4836)**.

1/28/02 3:22 PM

1 OF 1 DOCUMENT

5,694,937

GET 1ST DRAWING SHEET OF 10

Dec. 9, 1997

Ultrasound diagnostic apparatus and method

REISSUE: Reissue Application filed Dec. 9, 1999 (O.G. Feb. 15, 2000) Ex. Gp.:  
3737; Re. S.N. 09/458,235

1 / 1 PLUSPAT - ©QUESTEL-ORBIT - image

- PN** - US5694937 A 19971209 [US5694937]
- TI** - (A) Ultrasound diagnostic apparatus and method
- PA** - (A) TOKYO SHIBAURA ELECTRIC CO (JP)
- IN** - (A) KAMIYAMA NAOHISA (JP)
- AP** - US59388696 19960130 [1996US-0593886]
- PR** - JP1387495 19950131 [1995JP-0013874]  
JP8977395 19950414 [1995JP-0089773]  
JP14352595 19950609 [1995JP-0143525]
- IC** - (A) A61B-008/00
- EC** - A61B-008/00D  
A61B-008/06F  
G01S-007/52S  
G01S-007/52S4  
G01S-015/89D
- PCL** - ORIGINAL (O) : 600443000; CROSS-REFERENCE (X) : 600446000  
600453000 600458000
- DT** - Basic
- CT** - US5255683; US5410516  
Christy K. Holland, et al., "In Vitro Detection of Cavitation Induced by a Diagnostic Ultrasound System" IEEE Transactions On Ultrasonics, Ferroelectrics, and Frequency Control, vol. 39, No. 1, Jan. 1992.
- STG** - (A) United States patent
- AB** - According to an ultrasound diagnostic apparatus of the present invention, a cross section of an examining human body having bubbles implanted as ultrasonic shadowing agent is scanned by an ultrasound so as to obtain an echo signal. Image data is repeatedly generated based on the echo signal. Then, image data is displayed as a motion image. Power of the ultrasound to be transmitted is changed from first power to second power, which is stronger than first power. The ultrasound of first power breaks a first amount of bubbles. The ultrasound of second power, which is stronger than first power, breaks a second amount of bubbles, which is larger than the first amount of bubbles. Though the image generated by use of first power is unclear, the amount of breakage of bubbles can be extremely retrained. Since the image is used to examine the state of the bubble flow to the region of interest, uncleanness can be allowed. When the bubbles are fully introduced to the region of interest, first power is changed to second power. Second power is stronger than first power. Therefore, the image obtained by second power is clearer than image obtained by first power, and is fit for a high accurate diagnosis of the state of the blood stream.

*1/1 LGST - ©LEGSTAT*

**PN** - US 5694937 [US5694937]

**AP** - US 593886/96 19960130 [1996US-0593886]

**DT** - US-P

**ACT** - 19960130 US/AE-A  
APPLICATION DATA (PATENT)  
US 593886/96 19960130 [1996US-0593886]

19960130 US/AS02

ASSIGNMENT OF ASSIGNOR'S INTEREST

KABUSHIKI KAISHA TOSHIBA 72 HORIKAWA-CHO, SAIWAI-KU  
KAWASAKI-SHI, JAPAN \* KAMIYAMA, NAOHISA : 19960118

19971209 US/A

PATENT

20000215 US/RF

REISSUE APPLICATION FILED

19991209

**UP** - 2000-07

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*1/1 CRXX - ©CLAIMS/RRX*

**PN** - 5,694,937 A 19971209 [US5694937]

**PA** - Toshiba Corp JP

**ACT** - 19991209 REISSUE REQUESTED

Issue Date of O.G.: 20000215

Reissue Request Number: 09/458235

Examination Group responsible for Reissue process: 3737

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*1/1 PAST - ©PAST*

**AN** - 200007-001075

**PN** - 5694937 A [US5694937]

**OG** - 2000-02-15

**ACT** - REISSUE APPLICATION FILED

*1/5 INPADOC - ©INPADOC*

**PN** - JP 3023290 B2 20000321 [JP3023290]  
**IN** - KAMYAMA NAOHISA  
**PA** - TOKYO SHIBAURA ELECTRIC CO  
**AP** - JP 89773/95-A 19950414 [1995JP-0089773]  
**PR** - JP 89773/95-A 19950414 [1995JP-0089773]  
**IC** - A61B-008/00

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*2/5 INPADOC - ©INPADOC*

**PN** - JP 8196537 A2 19960806 [JP08196537]  
**TI** - ULTRASONIC DIAGNOSTIC SYSTEM  
**IN** - KAMIYAMA NAOHISA  
**PA** - TOKYO SHIBAURA ELECTRIC CO  
**AP** - JP 13874/95-A 19950131 [1995JP-0013874]  
**PR** - JP 13874/95-A 19950131 [1995JP-0013874]  
**IC** - A61B-008/06; G01S-015/50

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*3/5 INPADOC - ©INPADOC*

**PN** - JP 8280674 A2 19961029 [JP08280674]  
**TI** - ULTRASONIC DIAGNOSTIC APPARATUS  
**IN** - KAMIYAMA NAOHISA  
**PA** - TOKYO SHIBAURA ELECTRIC CO  
**AP** - JP 89773/95-A 19950414 [1995JP-0089773]  
**PR** - JP 89773/95-A 19950414 [1995JP-0089773]  
**IC** - A61B-008/00

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*4/5 INPADOC - ©INPADOC*

**PN** - JP 8336527 A2 19961224 [JP08336527]  
**TI** - ULTRASONIC DIAGNOSTIC SYSTEM  
**IN** - KAMIYAMA NAOHISA  
**PA** - TOKYO SHIBAURA ELECTRIC CO  
**AP** - JP 143525/95-A 19950609 [1995JP-0143525]  
**PR** - JP 143525/95-A 19950609 [1995JP-0143525]  
**IC** - A61B-008/00

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5/5 INPADOC - ©INPADOC

**PN** - US 5694937 A 19971209 [US5694937]  
**TI** - ULTRASOUND DIAGNOSTIC APPARATUS AND METHOD  
**IN** - KAMIYAMA NAOHISA [JP]  
**PA** - TOKYO SHIBAURA ELECTRIC CO [JP]  
**AP** - US 593886/96-A 19960130 [1996US-0593886]  
**PR** - JP 13874/95-A 19950131 [1995JP-0013874]  
JP 89773/95-A 19950414 [1995JP-0089773]  
JP 143525/95-A 19950609 [1995JP-0143525]  
**IC** - A61B-008/00

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1/1 LEGALI - ©LEGSTAT

**PN** - US 5694937 [US5694937]  
**AP** - US 593886/96 19960130 [1996US-0593886]  
**DT** - US-P  
**ACTE** - 19960130 US/AE-A  
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19960130 US/AS02  
ASSIGNMENT OF ASSIGNOR'S INTEREST  
KABUSHIKI KAISHA TOSHIBA 72 HORIKAWA-CHO, SAIWAI-KU  
KAWASAKI-SHI, JAPAN \* KAMIYAMA, NAOHISA : 19960118  
  
19971209 US/A  
PATENT  
  
20000215 US/RF  
REISSUE APPLICATION FILED  
19991209  
**UP** - 2000-07